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## WHAT IS CLAIMED IS:

- 1. A GFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having at least mutations of Phe64Leu, Vall63Ala, and Ser175Gly.
- 2. A GFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having the three mutations of Phe64Leu, Vall63Ala, and Ser175Gly.
- 3. A BFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having at least mutations of Y66H, Y145F, and Phe64Leu.
- 4. A BFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having at least mutations of Y66H, Y145F, Phe64Leu, and Leu236Arg.
- 5. A BFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having the four mutations of Y66H, Y145F, Phe64Leu, and Leu236Arg.
- 6. A BFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having at least mutations of Y66H, Y145F, Phe64Leu, Vall63Ala, Ser175Gly and Leu236Arg.

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- 7. A BFP protein comprising the amino acid sequence set forth in SEQ ID No. 1 in the Sequence Listing, said sequence having the six mutations of Y66H, Y145F, Phe64Leu, Vall63Ala, Ser175Gly and Leu236Arg.
- 8. A gene encoding the GFP protein according to claim 1.
- 9. A gene encoding the GFP protein according to claim 2.
- 10. A gene encoding the BFP protein according to claim 3.
- 11. A gene encoding the BFP protein according to claim 4.
- 12. A gene encoding the BFP protein according to claim 5.
- 13. A gene encoding the BFP protein according to claim 6.
- 14. A gene encoding the BFP protein according to claim 7.